

REMARKS

In accordance with the foregoing, claims 8-12, 14 and 16 has been cancelled without prejudice or disclaimer and reserving the right to separately prosecute cancelled claims in a continuation application. In addition, claim 19 has been added. Therefore, claims 1-3 and 5-7 are pending in the present application. Please reconsider the claims in the present application in view of the remarks below.

In the Office Action, the Examiner rejected claims 1, 2, 4, 5, 7-9, 11, 12, 14 and 16 under 35 U.S.C. 103(a) as being unpatentable over Mennie et al. (U.S. Patent Number 6,721,442 B1) in view of Lee et al. (U.S. Patent Number 6,786,954 B1) and Voellmer et al. (U.S. Patent Number 6,439,395 B1). The Examiner also rejected claim 3 under 35 U.S.C. 103(a) as being unpatentable over Mennie et al. in view of Lee et al. and Voellmer et al., as applied to claim 1, and further in view of Ligas et al. (U.S. Patent Number 5,289,547). Finally, the Examiner rejected claims 6 and 10 under 35 U.S.C. 103(a) as being unpatentable over Mennie et al. in view of Lee et al. and Voellmer et al. as applied to claim 1, and further in view of Allatar (U.S. 2002/0126873 A1).

Without conceding to the propriety of the rejections (and reserving the right to continue to separately prosecute the claims as originally filed in a continuation application), Applicants in this response are amending independent claim 1 to clarify the subject matter being claimed, as shown above. In particular, claim 1 now recites “providing at least one authentic hard-copy document, each of said authentic hard-copy document printed including a first set of colors within a first color gamut of a printing device and at least one mark printed using a second color that is within a second color gamut, where the color second gamut is out of gamut of said printing device, said second color being printed using a custom-color ink” at lines 2-6 and support for this amendment can be found in at least in paragraph 13 of the originally filed specification. In addition, claim 1 has been amended to recite “searching each pixel array to identify said second color mark” at lines 9-10 and support for this amendment can be found at least in paragraphs 25-29 of the originally filed specification. Claim 1 also recites “sorting said plurality of candidate documents into a first group of scanned documents, which includes documents identified as having only the first set of colors within said first color gamut, and into a

second group of scanned documents having said second color mark within said second color gamut” at lines 11-15 and support for this amendment can be found at least in paragraphs 25-27 of the originally filed specification. Finally, claim 1 has been amended to recite “said out of gamut color produced by said custom color ink is selected from a differential gamut color volume lying outside a printable colors gamut volume of said printing device” at lines 18-20 and support for this amendment can be found at least in paragraph 13 of the originally filed specification.

According to MPEP §2142, a required prong in establishing a prima facie case of obviousness is that the prior art references when combined must teach or suggest all the claim limitations.

Mennie et al., Lee et al. and Voellmer et al. do not disclose or suggest every element claimed in independent claim 1, as amended. The Office Action concedes that both Mennie et al. and Lee et al. fails to disclose or suggest “sorting said plurality of candidate documents into a first group of scanned documents, which includes documents identified as having only the first set of colors within said first color gamut, and into a second group of scanned documents having said second color mark within said second color gamut, said scanned documents in said first group is characterized as counterfeit, and said scanned documents in said second group is characterized as authentic” (claim 1, lines 11-16). The Office Action alleges, however, that Voellmer et al. discloses that element. Applicants respectfully disagrees. Voellmer et al. explicitly discloses that “one can test security threads or other elements such as adhesive strips extending transversely to the bank note” (Col. 1, lines 35-38) and “[r]eject pocket 10 disposed in the immediate vicinity of the input pocket is intended for unidentifiable or suspected counterfeit notes which must be subjected to a check by the operator” (Col. 3, 17-20). Thus, it is clear that Voellmer et al. does not disclose, suggest or teach sorting scanned documents into a first group with a first set of colors and a second group having a second color. Rather, Voellmer et al. tests the bank notes for “security threads or other elements such adhesive strips” to determine whether the bank note is a counterfeit and subsequently physically places the note in a bid for further inspection by an operator.

The present application, as claimed in independent claim 1, does not use security threads or other elements to test the authenticity of the document. Instead, the documents to be authenticated are “form[ed] [into] scanned documents each having a two-dimensional array of image pixels for each candidate document” (claim 1, lines 7-8) and the two-dimensional array is searched for “said second color mark by separating colors within the document into the first set of colors and at least one second color” (claim 1, lines 9-10). Based on an analysis of the colors presented in the two-dimensional array, the method of claim 1 determines whether a scanned document is authentic.

Voellmer et al. does not disclose or suggest sorting scanned documents based on the presence or absence of an out of gamut color, where the out of gamut color is out of gamut for the particular printing device which printed the document being scanned. To reiterate, Voellmer et al. does not appear to detect colors or operate on scanned documents at all, but rather detects the presence of a security thread within a bank note and upon failing to identify a security thread, physically places the suspect bank note in a bid for further inspection.

In addition, claim 1 recites “said out of gamut color produced by said custom color ink is selected from a differential gamut color volume lying outside a printable colors gamut volume of said printing device, but inside both an object colors gamut volume and a gamut of physically realizable colors of a 3-dimensional color space” in the last four lines. In the Office Action, the Examiner does not cite specific prior art as teaching this feature of claim 1, but merely states the “object color gamut will be read as the gamut created by adding the new custom ink to the existing printing gamut previously disclosed by Lee” on page 4. The object color gamut (*e.g.*, the gamut of the document to be scanned), however, is broader than the color gamut of the printing device, because the “differential gamut color volume [lies] outside a printable colors gamut volume of said printing device” (claim 1). Consequently, even if the color gamut of the printing device described in Lee et al. is broadened with a custom ink (*e.g.* a custom ink cartridge is used by the printer), nothing has been cited or found in Lee et al. that teaches or suggest the *entire* gamut of physically realizable colors would be covered by the addition of using a custom ink in the printer. Since the entire color gamut of physically realizable colors is not taught to be reproducible by Lee et al., the printer taught by Lee et al. is not capable of printing “said out of

gamut color produced by said custom color ink is selected from a differential gamut color volume lying outside a printable colors gamut volume of said printing device, but inside both an object colors gamut volume and a gamut of physically realizable colors of a 3-dimensional color space.” For this reason, among others, the object color gamut *cannot* be read as the gamut created by adding the new custom ink to the existing printing gamut previously disclosed by Lee et al. and claim 1 is patentably distinct over Lee et al. and the remaining art of record.

Thus, for at least the above reasons, it is submitted that independent claim 1 and the respective dependent claims at least by virtue of dependency are patentably distinguishable over Mennie et al., Lee et al. and Voellmer et al., alone or in combination. In addition, the remaining references cited by the examiner (Ligas et al. and Allatar) fail to teach or suggest modifications of the Mennie et al., Lee et al. and Voellmer et al. to cure the failures of the art as discussed above.

In addition to the foregoing amendments to the claims, Applicants in this response have added new claim 19. Support for the foregoing amendments can be found at least in claim 7 of the originally filed specification. New claim 19 recites an “authentication test taken from a group of ... consisting of: checking account pattern-of-use exception; unexpected presence of thermochromic responding; unexpected presence of laser resonating inks; unexpected absence of ultraviolet fluorescing; unexpected absence of thermochromic responding; unexpected absence of laser resonating inks; and any combination of these authentication tests.” The Office Action implicitly admits, on page 7, that these limitations are not taught by the prior art of record. Therefore, it is submitted that new claim 19 is patentably distinguishable over the prior art of record, alone or in combination.

Therefore, in view of the foregoing, this application is now believed to be in condition for allowance, and a Notice of Allowance is respectfully requested. If the Examiner believes a telephone conference might expedite prosecution of this case, applicant respectfully requests that the Examiner call applicant's attorney at (516) 742-4343.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Steven Fischman", with a long horizontal flourish extending to the right.

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